

Table 7A. Income and Cash Operating Cost Summary, Pima (ELS) Cotton, 1996

COUNTY: Graham	FARM: Graham County Farm	WATER SOURCE: Both	TILLAGE: Conventional
CROP: Cotton, Pima	ACRES: 1.0	IRRIGATION SYSTEM: Flood Furrow	SOIL: Sandy-Loam
AREA: Safford Valley	YIELD: 698.0 Lb/Acre	PREVIOUS CROP: Cotton, Upland	DATE: 10/14/96

Item	Unit	Quantity	Price /Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME -> Lint	Pound	698.00	\$0.9400	\$656.12		
CottonSeed	Ton	0.65	114.6000	74.49	\$730.61	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					121.30	
Tractor/Self Propelled				54.97		
Hand				35.52		
Irrigation				30.81		
Chemicals & Custom Applications					113.38	
Fertilizers				49.88		
Insecticides				46.80		
Herbicides				16.71		
Farm Machinery and Vehicles					59.99	
Diesel Fuel				30.15		
Repairs & Maint.				29.84		
Irrigation (excluding labor)					21.01	
Pump Energy - Elect.				19.75		
Repairs & Maint.				1.26		
Water Assessment (See Note Below) **					**	
Other Purchased Inputs & Services					23.64	
Seed/Transplants				17.64		
Other Services & Rentals				6.00		
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					339.33	
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					19.25	
Tractor/Self Propelled				8.50		
Other/Contract				10.75		
Chemicals & Custom Applications					12.77	
Other Chemicals				12.77		
Farm Machinery and Vehicles					64.74	
Diesel Fuel				12.50		
Repairs & Maint.				52.24		
Custom Harvest/Post Harvest					2.14	
Cotton Ginning					61.59	
Crop Assessments					8.33	
Other Materials					1.32	
TOTAL HARVEST AND POST HARVEST EXPENSE					170.14	
OPERATING OVERHEAD->PICKUP USE					14.86	
OPERATING INTEREST AT 8.0%					10.49	
TOTAL CASH OPERATING EXPENSES					\$534.83	
RETURNS OVER CASH OPERATING EXPENSES					\$195.78	

Notes: The above figures do not include ownership costs, see Table 7B on Next Page for detailed cost allocation.

** A water assessment charge of \$35.00/Acre is included in the ownership costs of Table 7B.

Table 7B. Allocation of Ownership Costs; Pima (ELS) Cotton, 1996

COUNTY: Graham FARM: Graham County Farm WATER SOURCE: Both TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Safford Valley YIELD: 698.0 Lb/Acre PREVIOUS CROP: Cotton, Upland DATE: 10/14/96

Item	- CASH COST BASIS (\$/ACRE) -		- TOTAL COST BASIS (\$/ACRE) -	
	Income & Costs	Net Returns	Income & Costs	Net Returns
TOTAL INCOME at \$ 0.9400/Lb + 2nd Crop	\$730.61		\$730.61	
TOTAL OPERATING EXPENSES	534.82		534.82	
RETURN OVER CASH OPERATING EXPENSES		\$195.78		\$195.78
CASH OVERHEAD EXPENSES				
Taxes, Housing & Insur., Farm Machinery	11.40		11.40	
Wells & Irrig. System	6.14		6.14	
Gen. & Off. Overhead (5% of Tot. Oper. Exp.)	26.74		26.74	
General Farm Maint. (3% of Tot. Oper. Exp.)	16.04		16.04	
Total Cash Overhead Expenses	<u>60.32</u>		<u>60.32</u>	
Total Cash Oper. & Over. Cost	595.14		595.14	
RETURNS OVER CASH OPER. & OVER. EXPENSES.		135.46		135.46
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery & Vehicles			78.85	
Wells & Irrig. System			10.97	
Interest on Equity, Machinery & Vehicles			31.46	
Wells & Irrig. System			4.17	
Total Capital Allocations			<u>125.44</u>	
RETURNS TO LAND, CAPITAL, MANAGEMENT & RISK		135.46		
RETURNS TO LAND, MANAGEMENT & RISK				10.01
LAND COSTS / OWNERSHIP (100% Equity)				
Property Taxes (\$660 X 16% X .10016)	10.57		10.57	
Opport. Inter. on Land (100% X 6.0% X \$660)			39.60	
Water Assessment **	<u>35.00</u>		<u>35.00</u>	
Total Land Costs	45.57		<u>85.17</u>	
RETURNS TO MANAGEMENT, CAPITAL & RISK		89.88		
RETURNS TO MANAGEMENT & RISK				(75.16)
Management Services (8% of Tot. Oper. Exp.)			42.78	
TOTAL OWNERSHIP COST	<u>105.89</u>		<u>313.73</u>	
TOTAL COST	<u>\$640.72</u>		<u>\$848.55</u>	
RETURN TO MANAGEMENT, CAPITAL & RISK		\$89.88		
RETURN TO RISK (PROFITS)				(\$117.94)
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$0.6595		\$0.6595
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$0.1517		\$0.4494
BREAK-EVEN PRICE TO COVER TOTAL COST		\$0.8112		\$1.1089

Table 7C. Variable Operating Costs; Pima (ELS) Cotton, 1996

COUNTY: Graham FARM: Graham County Farm WATER SOURCE: Both TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Safford Valley YIELD: 698.0 Lb/Acre PREVIOUS CROP: Cotton, Upland DATE: 10/14/96

No.	First Month	Operation	— Hours * —		— Operating Costs (\$/Acre*) —				Times	Tot. Cash Expense	Class	
			Machine	Labor	Fuel/Rps.	Labor	Cust/Ser.	Materials				Total
1	Jan	Plow	0.900	1.000	10.54	8.41			18.95	1.0	18.95	L
2	Feb	Landplane	0.273	0.300	2.74	2.52			5.26	0.7	3.69	L
3	Feb	Laser Level	0.300	0.333	2.83	2.80			5.63	0.3	1.69	L
4	Feb	Apply Herbicide/Ground	0.225	0.250	2.26	2.10		3.95	8.31	1.0	8.31	G
5	Feb	Disk	0.225	0.250	2.77	2.10			4.87	1.0	4.87	L
6	Feb	List	0.225	0.250	2.35	2.10			4.45	1.0	4.45	L
7	Feb	Disk Ends	0.030	0.033	0.36	0.28			0.64	9.0	5.75	G
8	Feb	Buck Rows	0.030	0.033	0.26	0.28			0.54	7.0	3.79	G
9	Feb	Preirrigate		1.000		7.01			7.01	0.7	4.91	G
10	Feb	Preirrigate		1.500	21.01	10.51			31.52	0.3	9.46	G
11	Mar	Mulch	0.300	0.333	3.51	2.80			6.31	2.0	12.62	L
12	Apr	Plant		0.333		2.80		17.64	20.44	1.0	20.44	L
13	Apr	Remove Cap	0.180	0.200	1.54	1.68			3.22	1.0	3.22	G
14	Apr	Apply Fert/Ground	0.150	0.167	1.81	1.40		49.88	53.09	1.0	53.09	G
15	Apr	Cultivate	0.450	0.500	4.50	4.20			8.70	2.0	17.41	G
16	May	Hand Weeding		3.333		22.20			22.20	1.0	22.20	G
17	Jun	Irrigate		0.269		1.89			1.89	6.3	11.91	G
18	Jun	Irrigate		0.403	4.67	2.82			7.49	2.7	20.22	G
19	Jun	Cultivate	0.300	0.333	3.00	2.80			5.80	3.0	17.41	G
20	Jun	Hand Weeding		2.000		13.32			13.32	1.0	13.32	G
21	Jul	Apply Herbicide/Ground	0.225	0.250	2.26	2.10		12.76	17.12	1.0	17.12	G
22	Jul	Field Scouting						6.00	6.00	1.0	6.00	G
23	Aug	Apply Insecticide/Air						6.00	9.60	3.0	46.80	G
24	Sep	Irrigate		0.403		2.82			2.82	0.7	1.97	G
25	Sep	Irrigate		0.606	7.00	4.25			11.25	0.3	3.38	G
26	Sep	Prepare Ends	0.045	0.050	0.40	0.42			0.82	1.0	0.82	H
27	Sep	Apply Defoliant/ NOT FOUND						12.77	12.77	1.0	12.77	H
28	Nov	Cotton, First Pick	0.900	1.000	34.88	7.01			41.89	1.0	41.89	H
29	Nov	Cotton, Make Modules	0.375	0.417	5.00	3.51		1.13	9.64	1.0	9.64	H

* NOTES: See next page for notes.

Table 7C. Variable Operating Costs; Pima (ELS) Cotton, 1996

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 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Safford Valley YIELD: 698.0 Lb/Acre PREVIOUS CROP: Cotton, Upland DATE: 10/14/96

No.	First Month	Operation	Hours * -		Operating Costs (\$/Acre*)				Total	Times	Tot. Cash Expense	Class
			Machine	Labor	Fuel/Rps.	Labor	Cust/Ser.	Materials				
30	Nov	Cotton, Second Pick	0.600	0.667	23.25	4.67			27.92	0.8	22.34	H
31	Nov	Cotton, Make Modules	0.265	0.294	3.54	2.47		0.20	6.21	1.0	6.21	H
32	Nov	Haul, Custom 0.1 Mu							0.00	1.0	0.00	H
33	Nov	Cotton Ginning 20.5 Cs						61.59	61.59	1.0	61.59	P
34	Dec	Cotton Classing 1.4 Ba						2.14	2.14	1.0	2.14	M
35	Dec	Crop Assessment 1.4 Ba						8.33	8.33	1.0	8.33	M
36	Dec	Cut Stalks	0.225	0.250	2.33	2.10			4.43	1.0	4.43	P
37	Dec	Disk Residue	0.300	0.333	3.59	2.80			6.39	1.0	6.39	L
		Pickup Use 60 Mi/Ac	2.000		14.85						14.85	O
		Operating Interest at 8.00%						10.65			10.65	O
TOTAL CASH OPERATING EXPENSES:					\$160.61	\$140.57	\$106.71	\$127.13			\$535.02	T

* NOTES: Machine and labor hours and operating cost are for one time over the designated acreage. The 'Tot. Cash Expense' column and the 'TOTAL CASH OPERATING EXPENSES:' row include all operations, all times over. Classes are defined below. A water assessment charge of \$35.00/Acre included as ownership cost in Table 7B.

OPERATING COST SUMMARY BY CLASS		SENSITIVITY OF NET REVENUES OVER TOTAL CASH EXPENSES (\$/Acre)							
		Prices ->		-25%	-10%	Budgeted	+10%	+25%	
Land Preparation (L)	\$73.09								
Growing (G)	266.26								
Harvest (H)	93.6	Yields		\$0.70	\$0.84	\$0.94	\$1.03	\$1.17	Break-even
Post Harvest (P)	66.01								
Marketing (M)	10.47	-25%	523.5	-123.41	-49.59	-0.38	48.82	122.63	0.94
Operating Overhead (O)	25.50	-10%	628.2	-75.11	13.45	72.50	131.55	220.13	0.82
		Budgeted	698.0	-42.92	55.49	121.10	186.71	285.13	0.76
Total (T)	\$535.01	+10%	767.8	-10.73	97.52	169.70	241.87	350.13	0.71
		+25%	872.5	37.56	160.58	242.59	324.61	447.63	0.66
		Break-even Yield		791.06	605.85	524.05	461.71	391.80	

Table 7D. Resource and Cash Flow Requirements; Pima (ELS) Cotton, 1996

COUNTY: Graham FARM: Graham County Farm WATER SOURCE: Both TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Safford Valley YIELD: 698.0 Lb/Acre PREVIOUS CROP: Cotton, Upland DATE: 10/14/96

Month *	Number Irrig.	Water Applied (Inches)	Total Labor (Hrs)	Operating Cost (\$/Acre)						
				Purchased Water	Fuel, Oil & Repairs	Labor	Chemicals	Other Purchases	Services	Total
JAN C			1.00		10.54	8.41				18.95
FEB C	0.3	5.4	1.31		11.27	10.55	3.16			24.98
MAR C	0.7	12.6	1.09		7.21	8.10	0.79			16.10
APR C			1.74		13.65	14.71	49.88	17.64		95.88
MAY C			3.84		4.68	26.55				31.23
JUN C	2.0	8.0	3.08		7.05	21.57				28.61
JUL C	3.0	12.0	1.64		10.71	12.51	12.77		6.00	41.99
AUG C	4.0	16.0	1.70		9.85	12.58	19.20		12.00	53.63
SEP C	1.0	6.0	0.54		2.86	3.95	22.37		6.00	35.18
NOV C			2.11		57.37	15.79		1.32	49.27	123.75
DEC C			0.71		10.57	5.84			22.79	39.19
Pickup Use 60 Mi/Ac					14.85					14.85
Operating Interest at 8.0% Water Assessment				**					10.65	10.65
Total	11.0	60.0	18.81		160.61	140.55	108.17	18.96	106.71	535.00
%					30.01	26.27	20.22	3.54	19.94	100.00
TOTAL RESOURCES REQUIREMENTS (/Acre)			TOTAL ENERGY REQUIREMENTS (/Acre)							
Total N	100.0 lbs		Diesel Fuel			39.0	Gal			
Total P	0.0 lbs		Regular Gas			0.0	Gal			
Total K	0.0 lbs		NonLead Gas			6.0	Gal			
Total Labor	18.8 Hrs		Electricity/Pumping			199.1	KWH			
Total Water	60.0 AI		All Direct Energy			6.8	M BTU			
EQUIPMENT REQUIREMENTS (/Acre)										
Tractor, 100 PTO HP, MFWD			5.86 Hrs	Moldboard Plow, 3-16 2 Way			0.90 Hrs	Landplane 12'X 45'		0.19 Hrs
Drag Scraper, 10'			0.09 Hrs	Laser Receiver, Mast System			0.09 Hrs	Laser Trailer		0.09 Hrs
Saddle Tk Sprayer, 2 Tk 8 Row			0.45 Hrs	Dbl. Offset Disk, 13'			0.23 Hrs	Lister, 5 Bottom		0.23 Hrs
Offset Disk, 13.5'			0.57 Hrs	Rowbuck, 10'			0.21 Hrs	Power Mulcher, 4 Rw		0.60 Hrs
Planter, 4 Row			0.00 Hrs	Section Harrow, 3 Section			0.18 Hrs	Fert. Side Dress Unit, 4Row		0.15 Hrs
Cultivator, Sweep, 4 Rw			1.80 Hrs	Blade Scraper, 10'			0.05 Hrs	Cotton Picker, 2 Row		1.38 Hrs
Tractor, 80 PTO HP, MFWD			0.64 Hrs	Module Builder			0.64 Hrs	Rotary Stalk Cutter, 4 Row		0.23 Hrs
Pickup Truck, 1/2 Ton			2.00 Hrs							
MATERIALS REQUIREMENTS (/Acre)										
Trifluralin	1.00 Pt		Water, District			42.00 AI	Water, Pump		18.00 AI	
Pima Cotton Sd + Fung	28.00 Lb		20-00-00, Amm. Nitrate, Dry			500.00 Lb			1.75 Qt	
Prometryn	1.20 Pt		Lambdacyhalothrin			15.00 Oz	Sodium Chlorate		2.00 Ga	
Module Tarps	25.22 CW									
LABOR REQUIREMENTS (/Acre)										
Tractor			7.55 Hrs	Irrigators			4.40 Hrs	Hand Weeders		5.33 Hrs
Harvest			1.53 Hrs							

* NOTE: P = Previous Year C = Current Year N = Next Year

** A water assessment charge of \$35.00/Acre included as ownership cost in Table 7B.

COUNTY: Graham FARM: Graham County Farm WATER SOURCE: Both TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Safford Valley YIELD: 698.0 Lb/Acre PREVIOUS CROP: Cotton, Upland DATE: 10/14/96

No.	First Month	Times	Operation	Equipment/Custom Oper.		Job Rate Acres/Hr	— Material Use & Cost —			Service Cost \$/Unit	Labor \$/Unit	Type
				HP	Self-Prop./Implem.		Name	Appl. Rate	\$/Unit			
1	Jan	1.0	Plow	100	Moldboard Plow, 3-16 2	1.00						Tractor
2	Feb	0.7	Landplane	100	Landplane 12'X 45'	3.30						Tractor
3	Feb	0.3	Laser Level	100	Drag Scraper, 10' Laser Receiver, Mast Sy Laser Trailer	3.00						Tractor
4	Feb	1.0	Apply Herbicide/Groun	100	Saddle Tk Sprayer, 2 Tk	4.00	Trifluralin	1.00 Pt	30.06 Ga			Tractor
5	Feb	1.0	Disk	100	Dbl. Offset Disk, 13'	4.00						Tractor
6	Feb	1.0	List	100	Lister, 5 Bottom	4.00						Tractor
7	Feb	9.0	Disk Ends	100	Offset Disk, 13.5'	30.00						Tractor
8	Feb	7.0	Buck Rows	100	Rowbuck, 10'	30.00						Tractor
9	Feb	0.7	Preirrigate			1.00	Water, District	18.00 AI	0.00 AF			Irrigator
10	Feb	0.3	Preirrigate			0.67	Water, Pump	18.00 AI	14.00 AF			Irrigator
11	Mar	2.0	Mulch	100	Power Mulcher, 4 Rw	3.00						Tractor
12	Apr	1.0	Plant	100	Planter, 4 Row		Pima Cotton Sd + F	28.00 Lb	60.00 CW			Tractor
13	Apr	1.0	Remove Cap	100	Section Harrow, 3 Secti	5.00						Tractor
14	Apr	1.0	Apply Fert/Ground	100	Fert. Side Dress Unit,	6.00	20-00-00, Amm. Nit	500.00 Lb	190.00 Tn			Tractor
15	Apr	2.0	Cultivate	100	Cultivator, Sweep, 4 Rw	2.00						Tractor
16	May	1.0	Hand Weeding			0.30						Hand Weed
17	Jun	6.3	Irrigate			3.72	Water, District	4.00 AI	0.00 AF			Irrigator
18	Jun	2.7	Irrigate			2.48	Water, Pump	4.00 AI	14.00 AF			Irrigator
19	Jun	3.0	Cultivate	100	Cultivator, Sweep, 4 Rw	3.00						Tractor
20	Jun	1.0	Hand Weeding			0.50						Hand Weed
21	Jul	1.0	Apply Herbicide/Groun	100	Saddle Tk Sprayer, 2 Tk	4.00	Prometryn	1.75 Qt	17.50 Ga			Tractor
22	Jul	1.0	Field Scouting		CST Scout For Insects			1.20 Pt	30.00 Ga			
23	Aug	3.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mi		Lambdacyhalothrin	5.00 Oz	234.04 Ga	6.00 Ac		
24	Sep	0.7	Irrigate			2.48	Water, District	6.00 AI	0.00 AF			Irrigator
25	Sep	0.3	Irrigate			1.65	Water, Pump	6.00 AI	14.00 AF			Irrigator
26	Sep	1.0	Prepare Ends	100	Blade Scraper, 10'	20.00						Tractor
27	Sep	1.0	Apply Defoliant/Air		CST		Sodium Chlorate	2.00 Ga	6.08 Ga	0.00		
28	Nov	1.0	Cotton, First Pick		Cotton Picker, 2 Row	1.00						Harvest
29	Nov	1.0	Cotton, Make Modules	80	Module Builder	2.40	Module Tarps	21.45 CW	0.05 CW			Tractor
30	Nov	0.8	Cotton, Second Pick		Cotton Picker, 2 Row	1.50						Harvest
31	Nov	1.0	Cotton, Make Modules	80	Module Builder	3.40	Module Tarps	3.77 CW	0.05 CW			Tractor
32	Nov	1.0	Haul, Custom		CST Haul Cotton Modules					0.00 Mu		
33	Nov	1.0	Cotton Ginning		CST Gin Upland Cotton					3.00 Cs		
34	Dec	1.0	Cotton Classing		CST Class Cotton, HVI					1.50 Ba		
35	Dec	1.0	Crop Assessment		CST Pima (High Elev)					5.85 Ba		
36	Dec	1.0	Cut Stalks	100	Rotary Stalk Cutter, 4	4.00						Tractor
37	Dec	1.0	Disk Residue	100	Offset Disk, 13.5'	3.00						Tractor
			Pickup Use 60 Mi/Ac		Pickup Truck, 1/2 Ton	0.50						

* NOTE: Machine times, labor times, and material rates are for one time over the designated acreage.

** A water assessment charge of \$35.00/Acre included as ownership cost in Table 7B.